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REMARKS

Applicants have considered the outstanding official action. It is respectfully submitted that the claims are directed to patentable subject matter and that the application is in condition for allowance as set forth below.

The drawings are objected to under 37 CFR 1.83(a) for (1) failing to show every feature claimed, specifically the "at least one polarizing positioning means" as claimed in claim 19; and (2) for failure to show the polarizing positioning means as described in the specification at page 9, lines 16-23.

Applicants have attached a proposed corrected Figure 1 including (as highlighted) the polarizing positioning means of claim 19 and as described in the specification. The polarizing positioning means is denoted by the reference number "34". The paragraph at page 9, lines 16-23 has been amended to incorporate the reference number "34". No new matter has been added. Withdrawal of the objections to the drawings is requested.

Claims 13-23 and 25 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite as to how or in what respect the inner winding turns provide or present a "means for preventing the inner winding turns (itself) from unraveling inward".

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Applicants have amended claim 13 to clarify that the inner winding turns exhibit a contour which prevents the inner winding turns from unraveling inward. Support is present in the specification at page 6, line 19 through page 7, line 4. Thus, the inner winding turns itself prevent inward unraveling. No additional component is required. Withdrawal of the §112 rejection is requested.

The sole art rejection is of claims 13-23 and 25 under 35 U.S.C. §103(a) over the new combination of Oshitari (GB 2,147,821 A) in view of Whiteside (GB 2,150,456 A) and Kobayashi (U.S. Patent No. 4,487,378). Applicants respectfully traverse the rejection.

The sole independent claim, claim 13, is directed to a filter element comprising, inter alia, (a) an absorbent tissue paper material in sheet form, (b) compactly wound to form inner winding turns therein, (c) to constitute a tubular cylinder, (d) wherein fluid is able to move across the filter element in a substantially centripetal direction, (e) the filter element is devoid of a central core, and (f) the inner winding turns exhibit a contour which prevents the inner winding turns from unraveling inward.

Oshitari, the primary reference, teaches a liquid filter of filter paper 1 for removing particles in the form of chips 4 from liquid which includes a wind up reel 6 for unwinding the filter paper from a first roll of paper when

the paper becomes clogged with chips and for taking up the unwound portion of the filter paper, see for example Figures 1A, 2 and 6 of Oshitari. One skilled in the art would know that the filter paper of Oshitari could not be absorbent tissue paper as in applicants' claimed invention since given the specific teachings of unrolling the filter paper when wet and charged with chips to a wind up reel would require the paper to be water-resistant and very strong. Absorbent tissue paper material when wet has no strength and would be impossible to use in the manner taught in Oshitari thus making Oshitari not useful for its intended purpose.

Further, the filter paper of Oshitari is not compactly wound. This is evident due to the fact that the filter paper has to be supported by cylindrical plate 11, see Figure 3B. In the embodiment of Figure 6, the roll is supported by cylinder 38.

Additionally, as to the fluid flow, Oshitari teaches two embodiments. First, as shown in Figure 3A, the fluid flow is outward from the center. In a second embodiment where the fluid flow is in a centripetal direction, a cylinder is inside the core of the filter paper, Figure 6. Accordingly, Oshitari does not teach the combination of a centripetal flow and no central core as claimed by applicants. Oshitari teaches winding turns supported by a central core 38. No teaching is present as

to inner winding turns having a contour which prevents inward unraveling.

The secondary references cited do not make up for the shortcomings of Oshitari.

Whiteside teaches an oil filter having a filter element surrounding a central core integral with and projecting upward from the base. With reference to Figure 1 of Whiteside, oil entering inlet aperture 13 exits aperture 10 and flows downward in the direction of arrow 21 through the filter element 16 to outlet aperture 14. Accordingly, the core structure is critical to Whiteside's teaching of a fluid flow in a direction parallel to the axis of the filter. Whiteside would not be useful for its intended purpose without a central core and such intended purpose does not provide for a centripetal flow.

Accordingly, in view of the specific teaching of each of Oshitari and Whiteside, no suggestion is provided to use the paper of Whiteside (taught for use in parallel flow) as a filter paper strong enough to be wound up after use as a filter and where the fluid flow is centripetal.

As to Kobayashi, Kobayashi is directed to making a coreless toilet paper roll. No teaching is provided as to a filter element or device. The sole reason one skilled in the art would look to Kobayashi would be based on hindsight, i.e., knowing applicants' teaching and looking for a means

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to provide for a component of such teaching. Kobayashi does not provide any teaching or suggestion for use as a filter element in a device such as described in Oshitari or Whiteside. Further, Oshitari requires a central core when providing for a centripetal flow and Whiteside requires a central core. Thus for each of Oshitari and Whiteside to be useful for their intended purpose, one skilled in the art would not look to a coreless toilet paper roll as taught in Kobayashi. Further as set forth above, tissue paper, such as used for toilet paper, would not have adequate strength to fulfill the requirements of Oshitari.

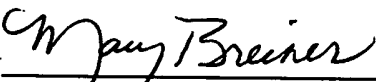
Accordingly, in view of the specific required teachings of the applied references and lack of suggestion to modify the filter elements described so as to provide applicants' claimed invention, it is respectfully submitted that the applied art does not render the claimed invention obvious within the meaning of 35 U.S.C. §103. Withdrawal of the §103 rejection is requested.

Reconsideration and allowance of the application is respectfully urged.

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Respectfully submitted,

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Attachment - Proposed Corrected Figure 1